

Radioanalytical Laboratory Facilities and Equipment

Facilities:

- **Building JN2**
 - 1831 sq. ft. of laboratory space includes:
 - environmental wet chemistry lab with one (1) fume hood
 - project/environmental combined wet chemistry lab with five (5) fume hoods
 - three (3) count rooms
 - 635 sq. ft. of storage space
- **Building JN1**
 - Hot lab projected to be reconstructed by September 30, 2003. Hot lab used for nanocurie and higher radiological activity sample preparation and dilution. Separation analyses completed in building JN2 project/environmental lab.

Equipment:

- **Gamma Spectroscopy Counting System with 6 High-Purity Germanium Detectors**

| Inventory No. | Description |
|---------------|---|
| GI92821 | Gamma Shield - Lead |
| GI92823 | Gamma Shield - Lead |
| GI93409 | Germanium Detector |
| GI93410 | Germanium Detector |
| GI93411 | Dolly (move lead shield) |
| GI93556 | Gamma Shield – Lead |
| GI93557 | Gamma Shield – Lead |
| GI93558 | NIM BIN |
| GI93558-001 | High Voltage (HV) Power Supply |
| GI93558-002 | HV Power Supply |
| GI93558-003 | AFT Research Amplifier |
| GI93558-004 | Analog Digital Converter (ADC) |
| GI93558-005 | ND556 AIM |
| GI93558-006 | ADC |
| GI93558-007 | AFT Research Amplifier |
| GI93558-008 | HV Power Supply |
| GI93558-009 | AIM |
| GI93562-004 | 9660 ICB Digital Signal Processor (DSP) |
| GI93562-005 | DSP |
| GI93562-006 | PC |
| GI93562-007 | PC |
| X33685 | Gamma Detector and Dewar |
| GI94159 | Uninterruptible Power Source |
| GI93371 | Amplifier, Spectroscopy |

- **Alpha Spectroscopy Counting System – 16 Chambers**

| Inventory No. | Description |
|----------------------|---------------------------------------|
| GI93559 | Cabinet – Alpha 7401 |
| GI93559-001 | ND556 AIM |
| GI93559-002 | ADC |
| GI93559-003 | AMX-Alpha 7401 |
| GI93559-004 | NIM BIN – Alpha 7401 |
| GI93559-005 | Alpha Spec – 7401 Chamber |
| GI93559-006 | Alpha Spec – 7401 Chamber |
| GI93559-007 | Alpha Spec – 7401 Chamber |
| GI93559-008 | Alpha Spec – 7401 Chamber |
| GI93559-009 | Spectrometer Dual Alpha (4 – 2 packs) |
| GI93559-010 | Spectrometer – Dual Alpha |
| GI93559-011 | Alpha Spectrometer Dual Alpha |
| GI93559-012 | Alpha Spec Dual Alpha |
| GI93559-013 | Vacuum Pump |

- **Gamma Analyst – Automatic Gamma Counting System Holds 18 Large Marinellis on the Carousel**

| Inventory No. | Description |
|----------------------|--|
| GI93692 | Gamma Analyst Detector – High Purity Germanium |
| GI00618 | Gamma Analyst Counter |

- **Low Background Gas-Flow Proportional Counting Systems**

| Inventory No. | Description |
|----------------------|--|
| GI00871 | Detector Alpha/Beta S5E Series Tennelec |
| X43143 | Detector Alpha/Beta LB5100 Series Tennelec |
| X39265 | Upgrade of LB5100 Series I System |
| X35471 | Alpha/Beta Counting System |
| X50996 | PC |
| X46658 | NIM/BIN |
| X51530 | Printer, HP Laser Jet 4 |

- **Liquid Scintillation Counter**

| Inventory No. | Description |
|----------------------|---------------------------|
| X43365 | Analyzer Packard Tri-Carb |
| X54991 | 75 MHz Pentium Computer |
| GI87300 | Printer |

• **Miscellaneous RAL Equipment**

| Inventory No. | Description |
|----------------------|-------------------------------------|
| X39729 | Electronic Balance, Sartorius |
| GI90848 | Detector, Coaxial Germanium |
| GI90920 | Analytical Balance |
| GI92800 | Vacuum Pump |
| GI92861 | Electroplater, Eberbach |
| GI93567 | Safe |
| GI93710 | Safe |
| GI93943 | Food Processor |
| GI93831 | Microwave Furnace |
| GI94281 | Mettler Toledo, Top-Loading Balance |
| GI95023 | Uninterruptible Power Source |
| GI95024 | Uninterruptible Power Source |
| GI95025 | Uninterruptible Power Source |
| GI95070 | Engraver |
| GI95071 | Drill |
| GI00056 | Oven, Gravity Convection |
| GI00145 | Balance, Analytical |
| GI00146 | Balance, Analytical |
| GI00157 | Water Purification System |
| GI00561 | Furnace |
| GI00680 | Microwave Reaction System |
| GI00680-001 | Pressure Vessels |
| GI00693 | PERALS Alpha Spectrometer |
| GI00725 | PERALS Alpha Spectrometer |
| X35538 | Rotary Mill |
| X51236 | Printer for PERALS System |

NOTE: GI prefix designates government equipment and X prefix designates Battelle Memorial property